RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _/0/021,741ß_

Source: _1Fw/6_

Date Processed by STIC: _2/14/05_

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number: _10/021,7418_   CRF Edit Date: _2/15/05_
Edited by: _AL_

____ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

____ Corrected the SEQ ID NO. Sequence numbers edited were:

_____

____ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

_____

____ Deleted: ___ invalid beginning/end-of-file text ; ___ page numbers

____ Inserted mandatory headings/numeric identifiers, specifically:

_____

____ Moved responses to same line as heading/numeric identifier, specifically:

_____

✓ Other: _Sequence 2 - corrected spelling of "Sapiens"_

_____

_____

Revised 09/09/2003

IFW16

RAW SEQUENCE LISTING   DATE: 02/15/2005
PATENT APPLICATION: US/10/021,741B   TIME: 11:24:30

Input Set : N:\AMC\pto.amc.txt
Output Set: N:\CRF4\02152005\J021741B.raw

```
 3 <110> APPLICANT: University of North Texas Health Science Center at Fort
 4       Worth
 5       Mathews, Porunellor A.
 6       Boles, Kent
 8 <120> TITLE OF INVENTION: Immuno activation of CS1 receptor in natural killer cells to
 9       inhibit tumor cell growth
11 <130> FILE REFERENCE: 120746.00004
13 <140> CURRENT APPLICATION NUMBER: 10/021,741B
14 <141> CURRENT FILING DATE: 2001-12-12
16 <160> NUMBER OF SEQ ID NOS: 5
18 <170> SOFTWARE: PatentIn version 3.3
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 1083
22 <212> TYPE: DNA
23 <213> ORGANISM: Homo Sapiens
25 <300> PUBLICATION INFORMATION:
26 <301> AUTHORs: Boles,K.S. and Mathew,P.A.
27 <302> TITLE: Molecular cloning of CS1, a novel human natural killer cell
28 <303> JOURNAL: Immunogenetics
29 <304> VOLUME: 52
30 <305> ISSUE: (3-4)
31 <306> PAGES: 302-307
32 <307> DATE: 2001
33 <308> DATABASE ACCESSION NO: AF291815
34 <309> DATABASE ENTRY DATE: 2000-08-01
35 <313> RELEVANT RESIDUES: (1)..(1083)
37 <300> PUBLICATION INFORMATION:
38 <308> DATABASE ACCESSION NO: AF291815
39 <309> DATABASE ENTRY DATE: 2000-08-01
40 <313> RELEVANT RESIDUES: (1)..(1083)
42 <400> SEQUENCE: 1
43 cagagagcaa tatggctggt tccccaacat gcctcaccct catctatatc ctttggcagc      60
45 tcacagggtc agcagcctct ggacccgtga aagagctggt cggttccgtt ggtggggccg     120
47 tgactttccc cctgaagtcc aaagtaaagc aagttgactc tattgtctgg accttcaaca     180
49 caaccccctct tgtcaccata cagccagaag ggggcactat catagtgacc caaaatcgta    240
51 atagggagag agtagacttc ccagatggag ctactccct gaagctcagc aaactgaaga     300
53 agaatgactc agggatctac tatgtgggga tatacagctc atcactccag cagccctcca     360
55 cccaggagta cgtgctgcat gtctacgagc acctgtcaaa gcctaaagtc accatgggtc     420
57 tgcagagcaa taagaatggc acctgtgtga ccaatctgac atgctgcatg gaacatgggg     480
59 aagaggatgt gatttatacc tggaaggccc tggggcaagc agccaatgag tcccataatg     540
61 ggtccatcct ccccatctcc tggagatggg gagaaagtga tatgaccttc atctgcgttg     600
63 ccaggaaccc tgtcagcaga aacttctcaa gccccatcct tgccaggaag ctctgtgaag     660
65 gtgctgctga tgacccagat tcctccatgg tcctcctgtg tctcctgttg gtgcccctcc     720
```

RAW SEQUENCE LISTING   DATE: 02/15/2005
PATENT APPLICATION: US/10/021,741B   TIME: 11:24:30

                Input Set : **N:\AMC\pto.amc.txt**
                Output Set: **N:\CRF4\02152005\J021741B.raw**

```
67 tgctcagtct ctttgtactg gggctatttc tttggtttct gaagagagag agacaagaag   780
69 agtacattga agagaagaag agagtggaca tttgtcggga aactcctaac atatgccccc   840
71 attctggaga gaacacagag tacgacacaa tccctcacac taatagaaca atcctaaagg   900
73 aagatccagc aaatacggtt tactccactg tggaaatacc gaaaaagatg gaaaatcccc   960
75 actcactgct cacgatgcca gacacaccaa ggctatttgc ctatgagaat gttatctaga  1020
77 cagcagtgca ctgcccctaa gtctctgctc aaaaaaaaaa caattctcgg cccaaagaaa  1080
79 aca                                                                1083
```

82 <210> SEQ ID NO: 2
83 <211> LENGTH: 335
84 <212> TYPE: PRT
85 <213> ORGANISM: Homo Sapiens
87 <300> PUBLICATION INFORMATION:
88 <301> AUTHORs: Boles,K.S. and Mathew,P.A.
89 <302> TITLE: Molecular cloning of CS1, a novel human natural killer cell
90 <303> JOURNAL: Immunogenetics
91 <304> VOLUME: 52
92 <305> ISSUE: (3-4)
93 <306> PAGES: 302-307
94 <307> DATE: 2001
95 <308> DATABASE ACCESSION NO: AAK11549
96 <309> DATABASE ENTRY DATE: 2001-08-01
97 <313> RELEVANT RESIDUES: (1)..(335)
99 <300> PUBLICATION INFORMATION:
100 <308> DATABASE ACCESSION NO: AAK11549
101 <309> DATABASE ENTRY DATE: 2001-08-01
102 <313> RELEVANT RESIDUES: (1)..(335)
104 <400> SEQUENCE: 2
106 Met Ala Gly Ser Pro Thr Cys Leu Thr Leu Ile Tyr Ile Leu Trp Gln
107 1   5   10   15
110 Leu Thr Gly Ser Ala Ala Ser Gly Pro Val Lys Glu Leu Val Gly Ser
111   20   25   30
114 Val Gly Gly Ala Val Thr Phe Pro Leu Lys Ser Lys Val Lys Gln Val
115   35   40   45
118 Asp Ser Ile Val Trp Thr Phe Asn Thr Thr Pro Leu Val Thr Ile Gln
119   50   55   60
122 Pro Glu Gly Gly Thr Ile Ile Val Thr Gln Asn Arg Asn Arg Glu Arg
123 65   70   75   80
126 Val Asp Phe Pro Asp Gly Gly Tyr Ser Leu Lys Leu Ser Lys Leu Lys
127   85   90   95
130 Lys Asn Asp Ser Gly Ile Tyr Tyr Val Gly Ile Tyr Ser Ser Ser Leu
131   100   105   110
134 Gln Gln Pro Ser Thr Gln Glu Tyr Val Leu His Val Tyr Glu His Leu
135   115   120   125
138 Ser Lys Pro Lys Val Thr Met Gly Leu Gln Ser Asn Lys Asn Gly Thr
139   130   135   140
142 Cys Val Thr Asn Leu Thr Cys Cys Met Glu His Gly Glu Glu Asp Val
143 145   150   155   160
146 Ile Tyr Thr Trp Lys Ala Leu Gly Gln Ala Ala Asn Glu Ser His Asn
147   165   170   175

```
150 Gly Ser Ile Leu Pro Ile Ser Trp Arg Trp Gly Glu Ser Asp Met Thr
151         180             185             190
154 Phe Ile Cys Val Ala Arg Asn Pro Val Ser Arg Asn Phe Ser Ser Pro
155         195             200             205
158 Ile Leu Ala Arg Lys Leu Cys Glu Gly Ala Ala Asp Asp Pro Asp Ser
159     210             215             220
162 Ser Met Val Leu Leu Cys Leu Leu Leu Val Pro Leu Leu Leu Ser Leu
163 225             230             235             240
166 Phe Val Leu Gly Leu Phe Leu Trp Phe Leu Lys Arg Glu Arg Gln Glu
167             245             250             255
170 Glu Tyr Ile Glu Glu Lys Lys Arg Val Asp Ile Cys Arg Glu Thr Pro
171         260             265             270
174 Asn Ile Cys Pro His Ser Gly Glu Asn Thr Glu Tyr Asp Thr Ile Pro
175         275             280             285
178 His Thr Asn Arg Thr Ile Leu Lys Glu Asp Pro Ala Asn Thr Val Tyr
179     290             295             300
182 Ser Thr Val Glu Ile Pro Lys Lys Met Glu Asn Pro His Ser Leu Leu
183 305             310             315             320
186 Thr Met Pro Asp Thr Pro Arg Leu Phe Ala Tyr Glu Asn Val Ile
187             325             330             335
190 <210> SEQ ID NO: 3
191 <211> LENGTH: 12
192 <212> TYPE: PRT
193 <213> ORGANISM: artificial sequence
195 <220> FEATURE:
196 <223> OTHER INFORMATION: Peptide fragment of mAb for CS1 receptor.
198 <400> SEQUENCE: 3
200 Cys Gln Asn Arg Asn Arg Glu Arg Val Asp Phe Pro
201 1               5                   10
204 <210> SEQ ID NO: 4
205 <211> LENGTH: 11
206 <212> TYPE: PRT
207 <213> ORGANISM: artificial sequence
209 <220> FEATURE:
210 <223> OTHER INFORMATION: Peptide fragment of mAb for CS1 receptor.
212 <400> SEQUENCE: 4
214 Cys Met Glu His Gly Glu Glu Asp Val Ile Tyr
215 1               5                   10
218 <210> SEQ ID NO: 5
219 <211> LENGTH: 16
220 <212> TYPE: PRT
221 <213> ORGANISM: artificial sequence
223 <220> FEATURE:
224 <223> OTHER INFORMATION: Peptide fragment of mAb for CS1 receptor.
226 <400> SEQUENCE: 5
228 Cys Gln Glu Glu Tyr Glu Glu Lys Lys Arg Val Asp Ile Cys Arg Glu
229 1               5                   10                  15
```

VERIFICATION SUMMARY   DATE: 02/15/2005
PATENT APPLICATION: **US/10/021,741B**   TIME: 11:24:31

Input Set : **N:\AMC\pto.amc.txt**
Output Set: **N:\CRF4\02152005\J021741B.raw**

IFW16

RAW SEQUENCE LISTING   DATE: 02/15/2005
PATENT APPLICATION: US/10/021,741B   TIME: 11:19:31

Input Set : N:\Crf4\02142005\J021741.raw
Output Set: N:\CRF4\02152005\J021741B.raw

```
 1 <110> APPLICANT: University of North Texas Health Science Center at Fort
 2       Worth
 3       Mathews, Porunellor A.
 4       Boles, Kent
 5 <120> TITLE OF INVENTION: Immuno activation of CS1 receptor in natural killer cells to
 6       inhibit tumor cell growth
 7 <130> FILE REFERENCE: 120746.00004
 8 <140> CURRENT APPLICATION NUMBER: US/10/021,741B
 9 <141> CURRENT FILING DATE: 2001-12-12
10 <160> NUMBER OF SEQ ID NOS: 5
11 <170> SOFTWARE: PatentIn version 3.3
13 <210> SEQ ID NO: 1
14 <211> LENGTH: 1083
15 <212> TYPE: DNA
16 <213> ORGANISM: Homo Sapiens
17 <300> PUBLICATION INFORMATION:
18 <301> AUTHORs: Boles,K.S. and Mathew,P.A.
19 <302> TITLE: Molecular cloning of CS1, a novel human natural killer cell
20 <303> JOURNAL: Immunogenetics
21 <304> VOLUME: 52
22 <305> ISSUE: (3-4)
23 <306> PAGES: 302-307
24 <307> DATE: 2001
25 <308> DATABASE ACCESSION NO: AF291815
26 <309> DATABASE ENTRY DATE: 2000-08-01
27 <313> RELEVANT RESIDUES: (1)..(1083)
28 <300> PUBLICATION INFORMATION:
29 <308> DATABASE ACCESSION NO: AF291815
30 <309> DATABASE ENTRY DATE: 2000-08-01
31 <313> RELEVANT RESIDUES: (1)..(1083)
32 <400> SEQUENCE: 1
33       cagagagcaa tatggctggt tccccaacat gcctcaccct catctatatc ctttggcagc   60
34       tcacagggtc agcagcctct ggacccgtga aagagctggt cggttccgtt ggtggggccg  120
35       tgactttccc cctgaagtcc aaagtaaagc aagttgactc tattgtctgg accttcaaca  180
36       caacccctct tgtcaccata cagccagaag ggggcactat catagtgacc caaaatcgta  240
37       atagggagag agtagacttc ccagatggag gctactccct gaagctcagc aaactgaaga  300
38       agaatgactc agggatctac tatgtgggga tatacagctc atcactccag cagccctcca  360
39       cccaggagta cgtgctgcat gtctacgagc acctgtcaaa gcctaaagtc accatgggtc  420
40       tgcagagcaa taagaatggc acctgtgtga ccaatctgac atgctgcatg aacatgggg   480
41       aagaggatgt gatttatacc tggaaggccc tggggcaagc agccaatgag tcccataatg  540
42       ggtccatcct ccccatctcc tggagatggg gagaaagtga tatgaccttc atctgcgttg  600
43       ccaggaaccc tgtcagcaga aacttctcaa gccccatcct gccaggaag ctctgtgaag   660
44       gtgctgctga tgacccagat tcctccatgg tcctcctgtg tctcctgttg gtgcccctcc  720
```

RAW SEQUENCE LISTING   DATE: 02/15/2005
PATENT APPLICATION: **US/10/021,741B**   TIME: 11:19:31

Input Set : **N:\Crf4\02142005\J021741.raw**
Output Set: **N:\CRF4\02152005\J021741B.raw**

```
45     tgctcagtct ctttgtactg gggctatttc tttggtttct gaagagagag agacaagaag    780
46     agtacattga agagaagaag agagtggaca tttgtcggga aactcctaac atatgccccc    840
47     attctggaga gaacacagag tacgacacaa tccctcacac taatagaaca atcctaaagg    900
48     aagatccagc aaatacggtt tactccactg tggaaatacc gaaaaagatg gaaaatcccc    960
49     actcactgct cacgatgcca gacacaccaa ggctatttgc ctatgagaat gttatctaga   1020
50     cagcagtgca ctgcccctaa gtctctgctc aaaaaaaaaa caattctcgg cccaaagaaa   1080
51     aca                                                                 1083
```

53 <210> SEQ ID NO: 2
54 <211> LENGTH: 335   _Sapiens_
55 <212> TYPE: PRT
56 <213> ORGANISM: Homo (Sapens)
57 <300> PUBLICATION INFORMATION:
58 <301> AUTHORs: Boles,K.S. and Mathew,P.A.
59 <302> TITLE: Molecular cloning of CS1, a novel human natural killer cell
60 <303> JOURNAL: Immunogenetics
61 <304> VOLUME: 52
62 <305> ISSUE: (3-4)
63 <306> PAGES: 302-307
64 <307> DATE: 2001
65 <308> DATABASE ACCESSION NO: AAK11549
66 <309> DATABASE ENTRY DATE: 2001-08-01
67 <313> RELEVANT RESIDUES: (1)..(335)
68 <300> PUBLICATION INFORMATION:
69 <308> DATABASE ACCESSION NO: AAK11549
70 <309> DATABASE ENTRY DATE: 2001-08-01
71 <313> RELEVANT RESIDUES: (1)..(335)
72 <400> SEQUENCE: 2

```
73     Met Ala Gly Ser Pro Thr Cys Leu Thr Leu Ile Tyr Ile Leu Trp Gln
74     1               5                   10                  15
75     Leu Thr Gly Ser Ala Ala Ser Gly Pro Val Lys Glu Leu Val Gly Ser
76                     20                  25                  30
77     Val Gly Gly Ala Val Thr Phe Pro Leu Lys Ser Lys Val Lys Gln Val
78                 35                  40                  45
79     Asp Ser Ile Val Trp Thr Phe Asn Thr Thr Pro Leu Val Thr Ile Gln
80             50                  55                  60
81     Pro Glu Gly Gly Thr Ile Ile Val Thr Gln Asn Arg Asn Arg Glu Arg
82     65                  70                  75                  80
83     Val Asp Phe Pro Asp Gly Gly Tyr Ser Leu Lys Leu Ser Lys Leu Lys
84                     85                  90                  95
85     Lys Asn Asp Ser Gly Ile Tyr Tyr Val Gly Ile Tyr Ser Ser Ser Leu
86                     100                 105                 110
87     Gln Gln Pro Ser Thr Gln Glu Tyr Val Leu His Val Tyr Glu His Leu
88                 115                 120                 125
89     Ser Lys Pro Lys Val Thr Met Gly Leu Gln Ser Asn Lys Asn Gly Thr
90             130                 135                 140
91     Cys Val Thr Asn Leu Thr Cys Cys Met Glu His Gly Glu Glu Asp Val
92     145                 150                 155                 160
93     Ile Tyr Thr Trp Lys Ala Leu Gly Gln Ala Ala Asn Glu Ser His Asn
94                     165                 170                 175
```

```
 95        Gly Ser Ile Leu Pro Ile Ser Trp Arg Trp Gly Glu Ser Asp Met Thr
 96                    180                 185                 190
 97        Phe Ile Cys Val Ala Arg Asn Pro Val Ser Arg Asn Phe Ser Ser Pro
 98                    195                 200                 205
 99        Ile Leu Ala Arg Lys Leu Cys Glu Gly Ala Ala Asp Asp Pro Asp Ser
100            210                 215                 220
101        Ser Met Val Leu Leu Cys Leu Leu Leu Val Pro Leu Leu Leu Ser Leu
102        225             230                 235                 240
103        Phe Val Leu Gly Leu Phe Leu Trp Phe Leu Lys Arg Glu Arg Gln Glu
104                    245                 250                 255
105        Glu Tyr Ile Glu Glu Lys Lys Arg Val Asp Ile Cys Arg Glu Thr Pro
106                    260                 265                 270
107        Asn Ile Cys Pro His Ser Gly Glu Asn Thr Glu Tyr Asp Thr Ile Pro
108                    275                 280                 285
109        His Thr Asn Arg Thr Ile Leu Lys Glu Asp Pro Ala Asn Thr Val Tyr
110            290                 295                 300
111        Ser Thr Val Glu Ile Pro Lys Lys Met Glu Asn Pro His Ser Leu Leu
112        305                 310                 315                 320
113        Thr Met Pro Asp Thr Pro Arg Leu Phe Ala Tyr Glu Asn Val Ile
114                    325                 330                 335
116 <210> SEQ ID NO: 3
117 <211> LENGTH: 12
118 <212> TYPE: PRT
119 <213> ORGANISM: artificial sequence
120 <220> FEATURE:
121 <223> OTHER INFORMATION: Peptide fragment of mAb for CS1 receptor.
122 <400> SEQUENCE: 3
123        Cys Gln Asn Arg Asn Arg Glu Arg Val Asp Phe Pro
124        1               5                   10
126 <210> SEQ ID NO: 4
127 <211> LENGTH: 11
128 <212> TYPE: PRT
129 <213> ORGANISM: artificial sequence
130 <220> FEATURE:
131 <223> OTHER INFORMATION: Peptide fragment of mAb for CS1 receptor.
132 <400> SEQUENCE: 4
133        Cys Met Glu His Gly Glu Glu Asp Val Ile Tyr
134        1               5                   10
136 <210> SEQ ID NO: 5
137 <211> LENGTH: 16
138 <212> TYPE: PRT
139 <213> ORGANISM: artificial sequence
140 <220> FEATURE:
141 <223> OTHER INFORMATION: Peptide fragment of mAb for CS1 receptor.
142 <400> SEQUENCE: 5
143        Cys Gln Glu Glu Tyr Glu Glu Lys Lys Arg Val Asp Ile Cys Arg Glu
144        1               5                   10                  15
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 02/15/2005
PATENT APPLICATION: **US/10/021,741B**   TIME: 11:19:32

Input Set : **N:\Crf4\02142005\J021741.raw**
Output Set: **N:\CRF4\02152005\J021741B.raw**

<u>**Invalid Line Length:**</u>
The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 5

VERIFICATION SUMMARY   DATE: 02/15/2005
PATENT APPLICATION: **US/10/021,741B**   TIME: 11:19:32

Input Set : **N:\Crf4\02142005\J021741.raw**
Output Set: **N:\CRF4\02152005\J021741B.raw**